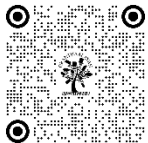


FUNDING AGENCIES CONTRIBUTION ON FINANCIAL MANAGEMENT RESEARCH PUBLICATIONS DURING 2014-2023: A SCIENTOMETRIC STUDY

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ABSTRACT

Purpose: This study examines trends in financial management research between 2014 and 2023, focusing on funding patterns, citation trends, institutional contributions, and thematic evolution within the field.

Methodology: Data was sourced from the Web of Science Core Collection, comprising 51,113 articles on financial management published between 2014 and 2023. The dataset was refined to 8,103 publications based on crucial funding agency mentions. Scientometric analysis was employed to identify global research trends and collaborations, including citation counts, bibliographic coupling, and keyword co-occurrence.

Findings: The study reveals a growing concentration of financial management research in China and the USA, with China leading in funding support through the National Natural Science Foundation of China (NSFC). Citation trends show a decline in the impact of individual articles over time, although publication volume has increased. Central themes such as sustainability, corporate governance, and risk management dominate the field, with a noticeable rise in research incorporating technology, particularly blockchain and machine learning. The COVID-19 pandemic influenced the research focus on resilience and public health finance. Notably, interdisciplinary collaboration is rising, especially between finance, technology, and sustainability, with key journals like Sustainability and Journal of Cleaner Production leading the publication output.

Originality/Value: This study provides a comprehensive overview of the evolving landscape of financial management research, offering insights into funding influences, citation dynamics, and emerging research themes. The findings highlight the increasing importance of sustainability and technology in financial management and the growing role of global collaboration in shaping future research directions.

Keywords: Financial Management, Scientometrics, Funding Agencies, Citation Analysis, Sustainability, Interdisciplinary Collaboration

1. INTRODUCTION

The relationship between funding agencies and academic research is an important component of the research ecosystem (Sivasekaran et al., P. 2021), especially in fields such as financial management, where research has direct implications for policy, corporate strategy, and economic stability (Coccia et al., A. 2015). Funding agencies, both public and commercial (Usha, S., 2023), influence the scope, direction, and goals of financial management research. Financial management research has progressed from traditional areas like corporate governance and financial theory to emerging topics such as digital finance, sustainable investment, and artificial intelligence (AI) use in financial decision-making (Musleh et al., A. 2022). Understanding the impact of financing sources on these developments is critical for improving financial management. A systematic search was conducted across academic databases such as Scopus, Web of Science, Google Scholar, and JSTOR. Keywords such as “funding agencies in financial management,” “scientometric analysis of

finance" (Baker et al., D. 2021), and "impact of funding on financial research" (Coccia et al., A. 2015) and "bibliometrics and financial management" (Ingale et al.; R. A., 2022) were used to identify relevant studies. The selected papers focus on scientometric (Saravanan et al., 2024) and bibliometric analyses (Sivankalai et al.; K., 2017) in the domain of financial management (Brigham et al., 2016), with a particular emphasis on funding sources and their effects on the research output in the field. Funding agencies play an instrumental role in shaping financial management research (Krlev, G. 2023). They provide financial support and influence the research agenda by prioritizing specific issues in the field. These agencies can be broadly classified into two categories: governmental and private. Governmental agencies, such as the U.S. National Science Foundation (NSF) (James et al.; S. R., 2016), the European Commission, and the Australian Research Council, tend to fund research that aligns with national and regional economic priorities. These agencies often support projects that focus on financial stability, corporate governance, public finance, and risk management, reflecting the broader concerns of policymakers and regulatory bodies (Rani et al., N. 2022). Private sector funding is driven by commercial interests and industry-specific challenges, supporting research in fintech, blockchain, and AI in finance (Zhou et al., 2021). It focuses on applied research addressing financial inclusion, consumer protection, and investment efficiency (Aitken et al., 2020). While governmental funding often targets broad societal issues and theoretical development, such as financial literacy and regulatory stability (Parker, 2012), private funding is more market-oriented, promoting innovations like cryptocurrency, robo-advisors, and digital wallets (Javaid et al., 2022). Public-private partnerships are blurring these lines, fostering collaborative research on emerging financial technologies. Despite their differences, both sectors increasingly collaborate to tackle complex financial challenges. For instance, joint research from public and private sources addresses financial inclusion, cybersecurity in digital finance, and AI ethics in financial decision-making (Goyal & Kumar, 2021). Emerging financial management research, particularly in sustainable finance, is attracting more attention from funding agencies. This area focuses on incorporating ESG factors into investment decisions, with growing support from government bodies like the European Commission for research on green bonds, socially responsible investing, and climate risk assessments (Goyal & Kumar, 2021). A rapidly growing field is financial technology (fintech), which includes innovations like blockchain, cryptocurrencies, digital currencies, and AI in finance. Private funding, especially from venture capitalists, drives research in blockchain, digital asset management, and smart contracts. These technologies are expected to disrupt traditional finance by enhancing transparency, reducing costs, and improving access to financial services (Jalal, Alon, & Paltrinieri, 2021). Behavioral finance, another emerging field, explores how psychological factors affect financial decisions and market outcomes. Research funded by both public and private agencies covers topics like investor behavior, the influence of social media on stock prices, and the role of emotions in financial crises (Cunningham, 2002). Scientometric tools, such as citation analysis, keyword co-occurrence, and network analysis, are crucial for evaluating the impact of funding agencies on financial management research. These methods help trace how research funded by specific agencies shapes the broader field (Sivankalai & Sivasekaran, 2021). Citation analysis tracks how often publications funded by specific agencies are cited, providing insights into their influence on subsequent research. Co-authorship analysis also highlights collaboration patterns between academic institutions, funding agencies, and industry partners (Chithiravel et al., 2020). By mapping co-authorship networks, researchers can assess how funding shapes interdisciplinary collaborations and fosters innovation in financial management research (Garcia-Machado, 2018). Bibliometric methods, such as keyword co-occurrence analysis (Karthika et al., 2023), track emerging research topics and shifting funding priorities. For example, the rise of publications on fintech and sustainable finance in the past decade reflects a changing focus on governmental and private funding (Baker et al., 2021). Funding agencies, both public and private, significantly influence financial management research by supporting studies on societal challenges, regulatory issues, and industry concerns. Government funding typically emphasizes broader societal benefits, while private funding focuses on applied, commercial solutions (Wolfe, 2005). As fields like sustainable finance, fintech, and behavioral finance grow, funding agencies increasingly prioritise these areas, reflecting the evolving landscape of global finance (Bayram et al., 2022). Scientometric tools provide valuable insights into how funding shapes research trends, collaboration patterns, and the impact of financial management studies (Sivankalai et al., 2021). Future research should continue exploring the dynamic relationship between funding and research outcomes, particularly in the face of emerging challenges in digital finance, sustainability, and economic stability.

2. METHODOLOGY

This study examined trends in financial management between 2014 and 2023. Data was sourced from the Web of Science Core Collection, which provided a comprehensive database of scholarly articles and citations. The study initially

began with a total of 79,580 records related to financial management. To ensure the relevance and quality of the research, filters were applied to narrow down the dataset to 51,113 results from the Web of Science Core Collection, specifically covering publications from 2014 to 2023. Further refinement was made by selecting articles mentioning prominent funding agencies, limiting the search to those records where up to 15 were listed in the metadata. This selection brought the dataset down to 8,103 results, which were analyzed to identify key trends in funding, citation patterns, and institutional contributions within the field of Financial Management. The data collected was systematically categorized into several key areas, including funding agencies, citation trends, institutional contributions, and the production of articles across leading journals. The study highlighted the geographical distribution of research output, top funding bodies' influence, and critical institutions' citation impact.

The Scientometric Analysis was applied to evaluate the volume of publications, citation counts, and the collaboration patterns of various countries, journals, and authors. Bibliographic coupling strength was used to measure the degree of academic collaboration and the research output of different countries, allowing for an understanding of the interconnectedness between global research communities. This approach revealed that China and the USA were dominant players in terms of publication volume and citation influence, with a significant concentration of financial management research emerging from these countries. Moreover, keyword co-occurrence analysis was performed to identify emerging research themes. Keywords such as "sustainability," "corporate governance," "financial performance," and "risk management" were found to be central to the evolving landscape of financial management scholarship. This thematic evolution highlighted the growing emphasis on sustainability and technology, reflecting the broader shifts in global economic and environmental concerns. Both quantitative and qualitative research methods were used in the analysis. The quantitative approach involved statistical measures such as the number of publications, citations, and the strength of bibliographic coupling between countries and institutions. The qualitative analysis focused on thematic trends, exploring how the subject matter of financial management has evolved in response to global events such as the COVID-19 pandemic, as well as the increasing integration of technology and sustainability in financial decision-making. By combining both methods, the study provided a comprehensive understanding of the dynamic nature of financial management research, offering insights into how funding agencies, authors, journals, and institutions have contributed to shaping the current landscape of the field.

Table 1 Research documents' growth, content, and collaboration patterns

Description	Results	Description	Results
Main Information About Data		Document Types	
Timespan	2014:2024	articles	6601
Sources (Journals, Books, etc)	2959	article; book chapters	23
Documents	8103	article; data papers	1
Annual Growth Rate %	-8.85	article; early access	46
Document Average Age	4.53	article; early access; retracted publication	1
Average citations per doc	20.19	article; proceedings papers	80
References	361774	article; retracted publication	10
DOCUMENT CONTENTS		book	1
Keywords Plus (ID)	12958	corrections	2
Author's Keywords (DE)	22428	editorial materials	31
AUTHORS		letter	1
Authors	33322	meeting abstract	1
Authors of single-authored docs	339	proceedings papers	670
AUTHORS COLLABORATION		reprints	3
Single-authored docs	363	reviews	628
Co-Authors per Doc	5.06	review; book chapters	2
International co-authorships %	35.28	review; early access	1

The data analysis on financial management research between 2014 and 2024 provides an overview of the field's evolution. Table 1 highlights the research documents' growth, content, and collaboration patterns. The total number of documents in the dataset is 8,103, sourced from 2,959 journals and books. Despite the wide range of sources, the field has experienced an annual growth rate of -8.85%, indicating a slowdown in the rate at which new research is being published. The average age of these documents is 4.53 years, suggesting that the research is relatively recent, with an average of 20.19 citations per document, underscoring the academic impact and relevance of the studies. A significant 361,774 references highlight the extensive interconnections among the research works, indicating high engagement

within the financial management academic community. In terms of content, the dataset includes a substantial number of Keywords Plus (12,958) and Author's Keywords (22,428), reflecting the diversity and specificity of the topics within financial management research. This suggests that scholars explore various sub-disciplines and integrate various perspectives in their work. The collaboration patterns in the data are particularly noteworthy. 33,322 authors contributed to the research, with 339 working on single-authored documents. Collaboration is prevalent, with an average of 5.06 co-authors per document and 35.28% of the documents involving international co-authorships. This indicates a growing trend towards collaborative and cross-border research in the field of financial management. Regarding publication types, articles dominate the dataset, comprising 6,601 documents. Other types, such as reviews (628) and proceedings papers (670), are also present but in smaller numbers. This distribution shows that peer-reviewed articles are the primary medium for disseminating financial management research, with a lesser but notable contribution from conference proceedings and review articles. This variety in document types suggests a healthy diversity in how financial management research is communicated and evaluated in the academic world. The data reveals a vibrant yet maturing field of financial management research, with a strong focus on collaboration, citation, and international engagement. The steady integration of new technologies, sustainability themes, and sophisticated research methods reflects the dynamic and evolving nature of the discipline.

Table 2 Funding Agencies in Financial Management

S. No	Name of the Funding Agencies	Funded Records
1	National Natural Science Foundation of China, NSFC	1426
2	United States Department of Health Human Services	714
3	National Institutes of Health, USA	646
4	European Union	582
5	UK Research Innovation	411
6	National Science Foundation	340
7	Spanish Government	258
8	Fundacao Para a Ciencia e a Tecnologia	257
9	Conselho Nacional de Desenvolvimento Cientifico e Tecnologico	244
10	Fundamental Research Funds for the Central Universities	224
11	Coordenacao De Aperfeicoamento De Pessoal De Nivel Superior	219
12	CGIAR	197
13	Natural Sciences and Engineering Research Council of Canada	183
14	National Office of Philosophy and Social Sciences	165
15	Ministry of Education Culture Sports Science and Technology Japan	155
16	Ministry of Science and Technology Taiwan	150
17	Australian Research Council	148
18	Japan Society for the Promotion of Science	146
19	United States Department of Agriculture	138
20	Engineering Physical Sciences Research Council	128

Table 2 lists the most prominent funding agencies in financial management, ranked by the number of funded records. The National Natural Science Foundation of China (NSFC) leads significantly, with 1,426 funded records, highlighting China's dominant role in supporting financial management research. This is followed by the United States Department of Health and Human Services (714) and the National Institutes of Health (646), which reflect the substantial investments from the U.S. in areas intersecting finance and healthcare. European and UK-based funding agencies also

play a significant role, with the European Union (582) and UK Research Innovation (411) contributing many records, emphasizing the importance of European collaboration in financial management research. Other notable contributors include Fundação Para a Ciência e a Tecnologia (257) and the National Science Foundation (340), reflecting broad international support from governmental and research bodies. The data indicates that research funding is heavily concentrated in a few large, well-established agencies, particularly in China, the U.S., and Europe. This concentration of financial support likely facilitates high-impact research in financial management, reinforcing the role of these agencies in shaping global academic discourse in the field.

Table 3 Annual Total Citation per Year in Financial Management

Year	Mean TC per Art	Number of Records	Mean TC per Year	Citable Years
2014	42.62	394.00	3.87	11
2015	34.12	401.00	3.41	10
2016	32.61	583.00	3.62	9
2017	24.86	723.00	3.11	8
2018	26.99	775.00	3.86	7
2019	23.26	879.00	3.88	6
2020	21.73	966.00	4.35	5
2021	14.56	1,094.00	3.64	4
2022	10.95	1,116.00	3.65	3
2023	5.05	1,015.00	2.52	2

The data in Table 3 provides an insightful view of citation trends in financial management research over the past decade. It shows a declining trend in the mean total citations per article (TC per Art), from 42.62 in 2014 to just 5.05 in 2023, signalling a gradual decrease in the visibility or impact of articles published in this field over time. Despite this decline, the number of records (publications) has steadily increased, reaching 1,116 in 2022, suggesting that more articles are being produced annually. However, the mean TC per Year has remained relatively stable (around 3.6) since 2017, indicating that while there are more articles, they receive fewer citations on average. The decreasing number of citable years (from 11 in 2014 to 2 in 2023) suggests that the average lifespan of citations for articles in this field is shrinking, potentially due to shifting research focuses or evolving trends in citation practices. This pattern may reflect a more rapid turnover of research topics and emerging areas of interest within financial management.

Table 4 Institutions wise global citation score in Financial Management

S. No	Institutions	Records	Percent	GCS	NA
1	Chinese Academy of Sciences, China.	106	1.3	2749	562
2	University of Oxford, England.	96	1.2	4643	799
3	Hong Kong Polytech University, Hong Kong.	81	1	2971	334
4	University of Sydney, Australia.	81	1	1870	724
5	University of Michigan, USA.	80	1	2533	2142
6	University of Melbourne, Australia.	79	1	2585	742
7	University of Zilina, Slovakia.	79	1	675	223
8	Johns Hopkins University, USA.	75	0.9	1882	649
9	University College London, England.	74	0.9	1717	660
10	University of Chinese Academy of Sciences, China.	73	0.9	2262	344
11	University of California, San Francisco, USA.	72	0.9	1767	718
12	University of Washington, USA.	71	0.9	2595	701
13	University of N Carolina, USA.	69	0.9	1138	471
14	Zhejiang University, China.	67	0.8	2176	380
15	University of Queensland, Australia.	66	0.8	2675	517
16	University of Toronto, Canada.	65	0.8	979	586
17	Tha University of British Columbia, Canada.	64	0.8	1958	483
18	University of Lisbon, Portugal.	64	0.8	1171	299
19	University of Sao Paulo, Brazil.	64	0.8	1308	399
20	Monash University, Australia.	61	0.8	1161	501

Table 4 provides insights into the global citation scores (GCS) of leading institutions in financial management. The Chinese Academy of Sciences has 106 records and an impressive GCS of 2,749, indicating its significant academic

influence in this domain. This is followed by the University of Oxford in England, with 96 records and a higher GCS of 4,643, reflecting its strong citation impact despite having fewer publications than the Chinese institution. Notable institutions from the U.S. and Australia also feature prominently in the rankings. For instance, the University of Michigan (80 records, GCS of 2,533), the University of Sydney (81 records, GCS of 1,870), and the University of Melbourne (79 records, GCS of 2,585) all show strong global citation scores, underlining their significant contribution to financial management research. The data also highlights the global spread of influential institutions, with universities from China, the U.S., Australia, Canada, and Brazil all demonstrating high citation impact. University of Zilina from Slovakia, while smaller in terms of records (79), has a lower GCS of 675, showing that citation impact is not solely dependent on the number of records but also on the prominence and influence of the research produced. This table underscores the global nature of financial management research, with solid contributions from established research hubs in Western countries and increasingly influential institutions in Asia and other regions. The GCS metric further emphasizes the importance of citation influence in shaping the field's academic landscape.

Table 5 Sources' Production over Time in Financial Management

Years	Sustainability	Journal of Cleaner production	PLOS One	IEEE Access	Int. Jnl. of Production Economics
2014	2	7	8	0	2
2015	7	13	21	0	8
2016	17	28	31	0	15
2017	29	44	38	2	18
2018	77	71	44	5	25
2019	144	103	55	18	31
2020	218	138	70	32	41
2021	290	162	81	50	49
2022	356	181	95	62	54
2023	409	198	115	66	64

Table 5 highlights the evolving production of critical journals in financial management over the past decade. The data shows a notable increase in publications across all journals, with Sustainability and Journal of Cleaner Production leading the way in publication output. Sustainability experienced the most significant growth, rising from 2 articles in 2014 to 409 in 2023, reflecting its increasing prominence and relevance in the field. Similarly, the Journal of Cleaner Production and PLOS ONE also saw steady growth in their publication numbers, from 7 and 8 articles in 2014 to 198 and 115, respectively, in 2023. Other journals like IEEE Access and the International Journal of Production Economics also exhibited slower growth. The rise in publications across these journals suggests an expanding interest in interdisciplinary approaches and integrating sustainability and cleaner production into financial management research. This trend could indicate a shift towards more applied research, where interdisciplinary collaborations between economics, production management, and sustainability are becoming increasingly relevant in addressing global challenges. Additionally, the consistent increase in publications across these journals suggests a growing demand for platforms that publish research aligned with modern trends in financial management, sustainability, and technology.

Table 6. Most Relevant Countries by Corresponding Author in Financial Management

Countries	Articles	SCP	MCP	Freq	MCP Ratio
China	1940	1342	598	0.239	0.308
USA	1450	1079	371	0.179	0.256
United Kingdom	556	295	261	0.069	0.469
Australia	362	206	156	0.045	0.431
Canada	350	222	128	0.043	0.366
Brazil	347	236	111	0.043	0.32

Germany	247	146	101	0.03	0.409
Portugal	242	183	59	0.03	0.244
Spain	235	159	76	0.029	0.323
Slovakia	198	160	38	0.024	0.192

Table 6 shows the most relevant countries by the number of published articles, categorized into SCP (Single Corresponding Author) and MCP (Multiple Corresponding Authors), along with the frequency and MCP ratio. China leads in total articles (1,940), with a notable proportion (0.239) involving multiple corresponding authors, yielding an MCP ratio of 0.308. This suggests a high level of collaboration in Chinese financial management research. The USA follows with 1,450 articles, of which 371 are associated with multiple corresponding authors (MCP ratio of 0.256). The United Kingdom and Australia show similarly strong involvement in collaborative research, with the UK having the highest MCP ratio (0.469), indicating a strong tendency toward multi-author collaboration in financial management research. Canada, Brazil, and Germany also contribute significantly to the research output in this field, with their MCP ratios (ranging from 0.32 to 0.41) pointing to an increasing preference for collaborative research models. Conversely, countries like Portugal and Slovakia exhibit lower MCP ratios despite lower total article counts, suggesting that collaborative research in financial management may be less prevalent in these regions. The data highlights the growing trend of international collaboration in financial management research, particularly in countries with higher research output. The increased prevalence of multiple corresponding authors underscores contemporary financial management scholarship's interdisciplinary and collaborative nature.

Bibliographic Coupling of Research Output by Countries

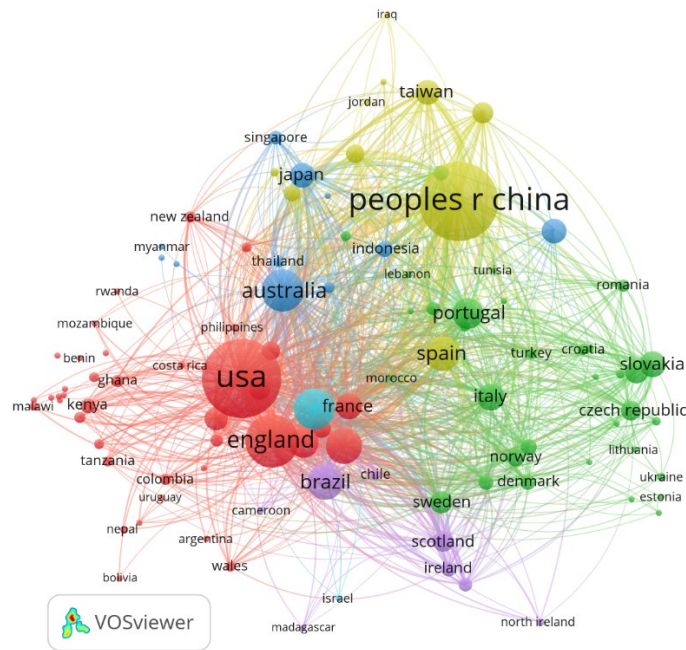


Figure 1 Bibliographic Coupling of Strength and Research Output by Country in FM

The data from Figure 1 provides an overview of the bibliographic coupling strength for countries in financial management research. Bibliographic coupling measures the degree of similarity between countries based on their shared citations, indicating the strength of academic connections between them. The total link strength column reflects the overall coupling strength for each country, with higher values suggesting more vital collaboration or citation overlap with other nations. For instance, China (ID: 104) leads by a wide margin with the highest total link strength of 341,635, followed by the USA (ID: 161) with 288,568. These two countries dominate global financial management research, indicating their central role in the academic landscape and the high degree of international collaboration within their

research communities. Countries like Argentina, Brazil, and Australia also show substantial link strength, with Argentina reaching 3,827 and Brazil at 83,610. These countries and others, such as Germany (106,732) and France (70,852), represent critical nodes in the bibliographic network. Interestingly, nations like Benin (1,703) and Malta (2,384) display relatively low link strength despite having a reasonable number of articles. This might reflect their more localized or emerging research areas, with fewer international collaborations than leading countries like China and the USA. The analysis clearly shows that major players in the field, including China, USA, and England, have significant academic influence, evidenced by their high total link strengths. At the same time, smaller or less research-intensive countries display weaker, more regionally concentrated citation networks. This underscores the centralization of research output in certain countries, with a few key players driving global academic discourse in financial management. Countries meeting the specified thresholds (i.e., at least 5 documents and 5 citations) and exhibiting strong bibliographic coupling links demonstrate the increasing interconnectedness of global research, with critical countries forming a dense web of collaborations and citation practices in the discipline.

Three Field Plot source, countries and authors

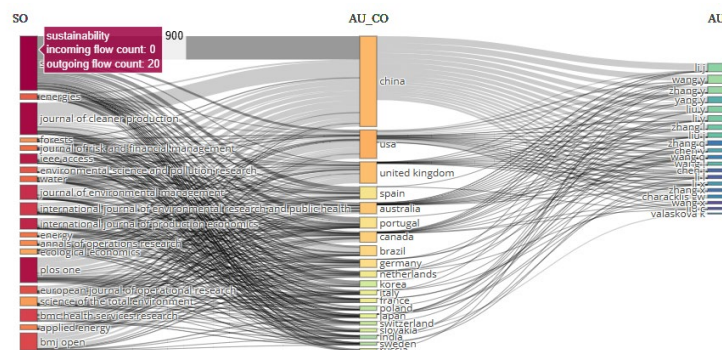


Figure 2 Three-Field Plot right author, left source and middle countries in FM

Figure 2 presents a three-field plot that visualizes the relationships between authors, countries, and sources (journals) in the domain of financial management. This type of analysis allows for a detailed understanding of how different entities—authors, countries, and sources—interact and influence each other within this research field. The plot highlights the most influential authors, countries, and journals, focusing on the top 20 entities in each category. Among the authors, Li J and Wang Y stand out with the highest incoming flow counts of 6, indicating they are frequently cited by other authors in the field. However, their outgoing flow counts are 0, suggesting that these authors are not as active in citing other researchers' work. This pattern may indicate that while these authors' work is influential, they tend to focus more on producing original research rather than engaging in reciprocal citations. Despite low outgoing citations, their high citation impact positions them as significant contributors to financial management research. In the field of countries, China and the USA are the two dominant nations in terms of citation flow. Both countries have incoming flow counts of 20, meaning they are major recipients of citations in financial management. China has an outgoing flow count of 18 and a total citation volume of 1.5k, signalling that it not only cites extensively but also produces a large volume of impactful research. Similarly, the USA shows a similar pattern with an outgoing flow count 18. However, its citation volume (474) is somewhat lower than China's, suggesting a less prominent, though still significant, role in shaping the field. These two countries, therefore, are central players in the global financial management research network.

The sources field reveals vital journals that are pivotal in financial management research. Sustainability and the Journal of Cleaner Production are the plot's primary journals, with high outgoing flow counts, indicating authors and countries frequently cite them. Sustainability has an outgoing flow count of 20 and a citation volume of 900, suggesting it is a major platform for disseminating research in the field. However, it only cites other sources sparingly. Similarly, the Journal of Cleaner Production has an outgoing flow count of 17 and a citation volume of 528, reflecting its influential role in the field, especially in sustainability and financial management. The three-field plot illustrates the interconnected nature of financial management research, where countries like China and the USA dominate citation flows, and journals such as Sustainability and the Journal of Cleaner Production serve as critical platforms for disseminating influential research. The analysis emphasizes the centrality of these entities in shaping the academic landscape of financial management, highlighting the importance of global collaboration and knowledge exchange within this field.

Co-occurrence network on Keyword plus

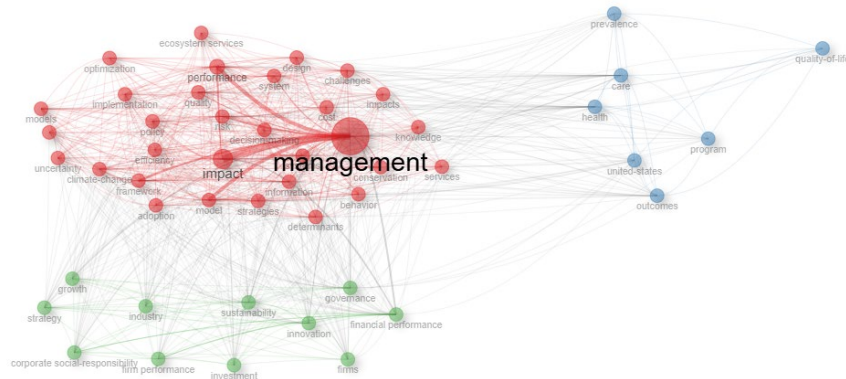


Figure 3 Keyword plus wise Co-occurrence Network

Figure 3 represents a keyword plus-wise co-occurrence network in financial management, focusing on how different keywords relate to one another within the academic literature. The nodes in this network correspond to specific keywords, and the edges between them indicate the co-occurrence of these keywords in the same articles or research papers. The size of the nodes is determined by the frequency of the keywords, with larger nodes representing more frequently occurring terms. For instance, terms like "management," "impact," "performance," and "model" have larger nodes, signifying their high relevance and widespread use in financial management research. These terms have significant betweenness centrality, meaning they are crucial for connecting different subfields or clusters of research. Betweenness values are particularly notable for the core concepts like "management" (261.52), "impact" (39.43), and "performance" (14.39), showing that these keywords act as bridges, linking various other keywords and facilitating the flow of ideas in the literature. This high betweenness centrality suggests that articles containing these terms often serve as connections between different research topics or approaches. The Closeness scores for terms like "management" (0.0208) and "impact" (0.0204) indicate how central these keywords are within the network, with higher values reflecting quicker access to all other keywords in the network. This measure signifies that these keywords are highly interconnected with other research themes. PageRank values reflect the importance of a keyword within the broader context of financial management literature. For instance, "management" (0.1356) and "impact" (0.0649) hold higher PageRank scores, indicating that these terms are not only widely used but also highly influential in shaping research directions. Keywords with higher PageRank scores are often found in influential or highly cited works. Clusters in the network also show thematic groupings, where specific keywords like "financial performance," "sustainability," and "innovation" co-occur frequently within specific research topics. These clusters reflect the growing emphasis on sustainable finance, governance, and innovation themes in modern financial management research. This keyword co-occurrence network highlights the key concepts and their relationships in financial management, with central terms influencing research trends and shaping academic discussions in this domain. By analyzing the co-occurrence patterns, researchers can identify emerging trends, knowledge gaps, and potential areas for future exploration.

Thematic evolution on author keywords

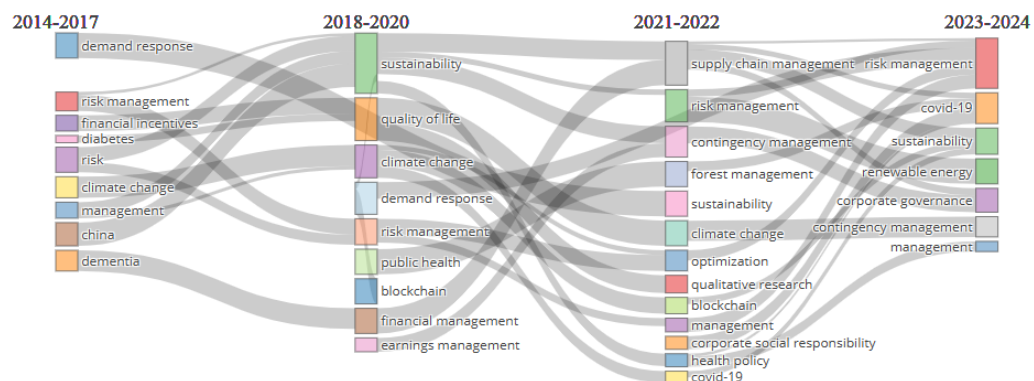


Figure 4 Author keywords wise Thematic Evolution

The thematic evolution in financial management research reveals how the field has adapted to changing global circumstances, technological advancements, and shifting societal priorities over the past decade, as illustrated in Fig. 4: Author Keywords Wise Thematic Evolution. 2014-2017: During this initial period, the focus was primarily on corporate governance, financial performance, and risk management. Researchers concentrated on refining financial strategies, mitigating risks, and improving corporate governance structures. A significant regional emphasis on China reflected its growing influence in global financial markets. In addition, environmental concerns began to make their way into the financial management discourse, with climate change emerging as an early keyword. This foreshadowed the increasing integration of environmental, social, and governance (ESG) factors into financial decision-making processes. 2018-2020: A notable shift occurred in the following years with a dominant focus on sustainability, corporate social responsibility (CSR), and supply chain management. The research explored how financial strategies could be aligned with environmental and social responsibilities, reflecting the increasing importance of sustainability in the business world. Innovation also gained traction, particularly in blockchain technology and machine learning. These technological advances became central to improving financial systems and managing risks more effectively. This period marked a significant turn toward integrating new technologies in finance. 2021-2022: The impact of the COVID-19 pandemic was unmistakably reflected in the research landscape, with topics like public health, health policy, and the financial implications of the pandemic becoming highly prominent. Sustainability remained a key theme, but with an added focus on resilience and the circular economy, indicating a more profound commitment to long-term, sustainable financial systems. The pandemic's disruption highlighted the need for flexibility and adaptability in financial management, leading to an increased focus on creating systems that can withstand future global crises. 2023-2024: The most recent period has continued to prioritize sustainability but with a stronger emphasis on renewable energy, supply chain management, and the application of deep learning techniques. These trends indicate a growing intersection between technology and sustainability, emphasising using cutting-edge technologies to address global challenges such as climate change. Blockchain, once a niche topic, has continued to rise, especially in the supply chain and risk management areas. These developments signal the continued evolution of financial management research towards more efficient, resilient, and technologically driven approaches to managing global economic and environmental risks. Financial management research has evolved significantly over the past decade, with a clear shift from traditional financial strategies to a more integrated approach combining sustainability, technological innovation, and resilience in response to environmental and societal changes. The ongoing incorporation of advanced technologies, alongside a sustained focus on sustainability, underscores the field's commitment to addressing the complex challenges of the 21st century.

3. CONCLUSION

This study provides a comprehensive analysis of the trends in financial management research over the past decade, highlighting key factors such as funding, citation patterns, institutional contributions, and emerging thematic areas. The data reveals that China and the USA are dominant players in publication volume and citation impact, with major funding agencies, notably the National Natural Science Foundation of China (NSFC), playing a crucial role in driving research forward. The increasing concentration of funding and publications in these countries underscores their centrality in shaping the global financial management landscape. While the overall volume of publications has steadily increased, citation impact has declined, suggesting a shift towards more specialized or emerging research topics that may take time to gain recognition. This trend, alongside the reduction in citable years for articles, reflects the rapid evolution of the field and the growing pace of academic turnover in financial management research. Thematic evolution in the field highlights the rising importance of sustainability, corporate governance, and technology. Key topics such as blockchain, machine learning, and renewable energy are becoming central to financial management research, reflecting broader global trends in technology integration and environmental concerns. Moreover, the influence of the COVID-19 pandemic on research topics like resilience and public health finance demonstrates how global events shape research priorities. Finally, the increasing prevalence of interdisciplinary and international collaboration indicates a shift toward a more globalized and integrated approach to financial management scholarship. This interconnectedness will likely drive future advancements in the field, particularly as new challenges and technologies emerge.

4. FUTURE STUDIES

Future research in financial management should further explore the evolving intersection of finance, technology, and sustainability. As technology continues to reshape the financial landscape, the role of emerging technologies such as artificial intelligence, blockchain, and machine learning warrants deeper investigation, especially in their impact on risk management, financial performance, and regulatory frameworks. Integrating these technologies into financial decision-making processes offers a rich area for exploration, particularly in the context of sustainability and environmental, social, and governance (ESG) factors. Additionally, the growing emphasis on sustainability, especially in response to global environmental challenges, presents an opportunity for research on how financial management practices can align with broader societal goals, such as the circular economy and renewable energy transitions. Examining how firms incorporate sustainability into financial strategies, performance evaluation, and risk management will be crucial as sustainability becomes a key driver of long-term value creation. The effects of global crises, such as the COVID-19 pandemic, highlight the need for resilience in financial systems. Future studies could focus on how financial management can adapt to global shocks, exploring areas like crisis management, financial stability, and the role of public health in shaping economic policy. Finally, the increasing collaboration between institutions across borders presents an opportunity to investigate further how global networks influence financial management practices. Future studies could explore the dynamics of cross-country collaborations and the role of multi-institutional research efforts in shaping the direction of the field. Understanding these collaborations can provide insights into the interconnectedness of global financial systems and the shared challenges and opportunities they face.

CONFLICT OF INTERESTS

None.

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